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(71) Applicant: **OKI ELECTRIC IND CO LTD**(72) Inventor: **OKUAKI YUTAKA**(54) **FORMATION OF BUMP ELECTRODE OF SEMICONDUCTOR DEVICE**

(57) Abstract:

PURPOSE: To contrive to prevent a metal from flowing out to the side of an inner lead or the corner part of each semiconductor element by a method wherein each one part of resist films over an electrode having an opening part is opened, the thicknesses of the resist films are formed in such a way that the outside resist film becomes thicker than the inside resist film and a bump electrode, whose bump top is formed in a state eccentric to the inside of each semiconductor element, is formed between the resist films.

CONSTITUTION: A second resist film 27 is formed on the outside, the side of the so-called outer peripheral side, of an electrode 23 arranged and formed on the outer peripheral side of each unit element on a semiconductor substrate 21, a first resist film 26 only is formed on the inside, which is situated to the electrode, of each unit element formed on the main surface of the substrate 21 and the resist films are formed. After that, the electrode is put in a bump plating solution or is brought into contact to the bump plating solution, is made to conduct, a bump is formed, the resist films are removed and a bump 30 of a form is obtained. The form of the bump 30 is formed into a form that a bump top 32 is shifted on the inside of each semiconductor element on the substrate 21 to a center

line 31 of the electrode 23. As the form of the bump is formed in such a way that the thicknesses of the resist films are thin on the inside of each unit element and are thick on the outside of each unit element, the reservoir part of a flowed-out metal is formed between an inner lead 40 and the bump 30.

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